REMARKS/ARGUMENTS

The Applicant originally submitted Claims 1-20 in the application. In the present response, the Applicant has amended independent Claims 1, 8, and 15. Support for the amendment can be found, e.g., in paragraphs [0020] and [0025]-[0026] of the original specification. No other claims have been canceled or added. Accordingly, Claims 1-20 are currently pending in the application.

I. Rejection of Claims 1-20 under 35 U.S.C. §103

The Examiner has rejected Claims 1-20 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,825,878 to Takahashi, *et al.* (hereinafter "Takahashi") in view of a paper entitled "Using a High-Performance, Programmable Secure Coprocessor" by Smith, *et al.* (hereinafter "Smith"). The Applicant believes the invention as presently claimed, however, is neither shown nor suggested in the cited combination of Takahashi and Smith. More specifically, the Applicant fails to find where the cited combination teaches or suggests applying a cryptographic key to input data arriving in a data input register to yield output data in a data output register, the data input and output registers located outside of a secure execution environment (SEE) as recited in now amended independent Claims 1, 8, and 15.

In the pending Final Rejection, the Examiner equates the external memory 11 of Takahashi with the claimed data input and output register located outside of a SEE. (*See* Final Rejection of October 22, 2008, page 2.) Takahashi teaches that direct memory access (DMA) controller 14 and memory controller 16 together operate to transfer instructions between external memory 11 and internal SRAM memory 18. Secure DMA controller 14 puts CPU core 12 in a wait state mode, or the CPU core 12 executes from an internal ROM and reads a page of external encrypted program

code or data containing a requested external page address from external memory 11 on a page-by-page basis. After the page of instructions has been written to the secure SRAM 18, the DMA controller 14 causes these instructions to be decrypted by sequentially transferring the contents of the secure internal SRAM 18 one 32-bit word at a time to the encryption and decryption core block 20. The cleared word is written back to the SRAM 18. (*See, e.g.*, column 2, line 60, through column 3, line 20.) Thus, Takahashi teaches that data arriving in an input data register outside of a SEE in external memory 11 is first transferred to secure SRAM 18 and then transferred from secure SRAM 18 to an encryption block where a cryptographic key is applied to the data. After the data is decrypted, it is transferred back to the secure SRAM 18 and then, finally, back to an output register in external memory 11 external to a SEE.

Claims 1, 8, and 15, however, have been amended to more clearly point out that the cryptographic key is applied to input data in an input register outside of a SEE to yield output data in an output register located outside of the SEE. Takahashi does not apply a cryptographic key to input data in a data input register located outside of a SEE but, rather, applies a cryptographic key to input data in an SRAM internal to the SEE. As such, Takahashi does teach or suggest applying a cryptographic key to input data arriving in a data input register to yield output data in a data output register, the data input and output registers located outside of a secure execution environment (SEE). Smith has not been cited to cure this deficiency of Takahashi but to teach secure memory coupled to a key register to receive a cryptographic key therefrom. (*See* Final Rejection of October 22, 2008, pages 4 and 7.) Therefore, the cited combination of Takahashi and Smith does not provide a *prima facie* case of obviousness for independent Claims 1, 8, and 15 and Claims that depend thereon.

Accordingly, the Applicants respectfully request the Examiner to withdraw the §103(a) rejection of Claims 1-20 and allow issuance thereof.

II. Conclusion

In view of the foregoing remarks, the Applicant now sees all of the Claims currently pending in this application to be in condition for allowance and therefore earnestly solicits a Notice of Allowance for Claims 1-20.

The Applicant requests the Examiner to telephone the undersigned agent of record at (972) 480-8800 if such would further or expedite the prosecution of the present application. The Commissioner is hereby authorized to charge any fees, credits or overpayments to Deposit Account 20-0668.

Respectfully submitted,

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